

Product Features

- Solid-state linear design
- Small and light weight
- Suitable for iDEN
- 50 Ohm Input/Output impedance
- High reliability and ruggedness
- Built in Output Isolator
- Built in monitoring circuit
- High linearity

Application

- iDEN Repeater



Description

This HPA Module is a high gain, wide dynamic range amplifier module. It has superior performance comes with a modest price tag. Custom design available.

Electrical Specifications @ VDD=+27DC, T=25°C, 50Ω System

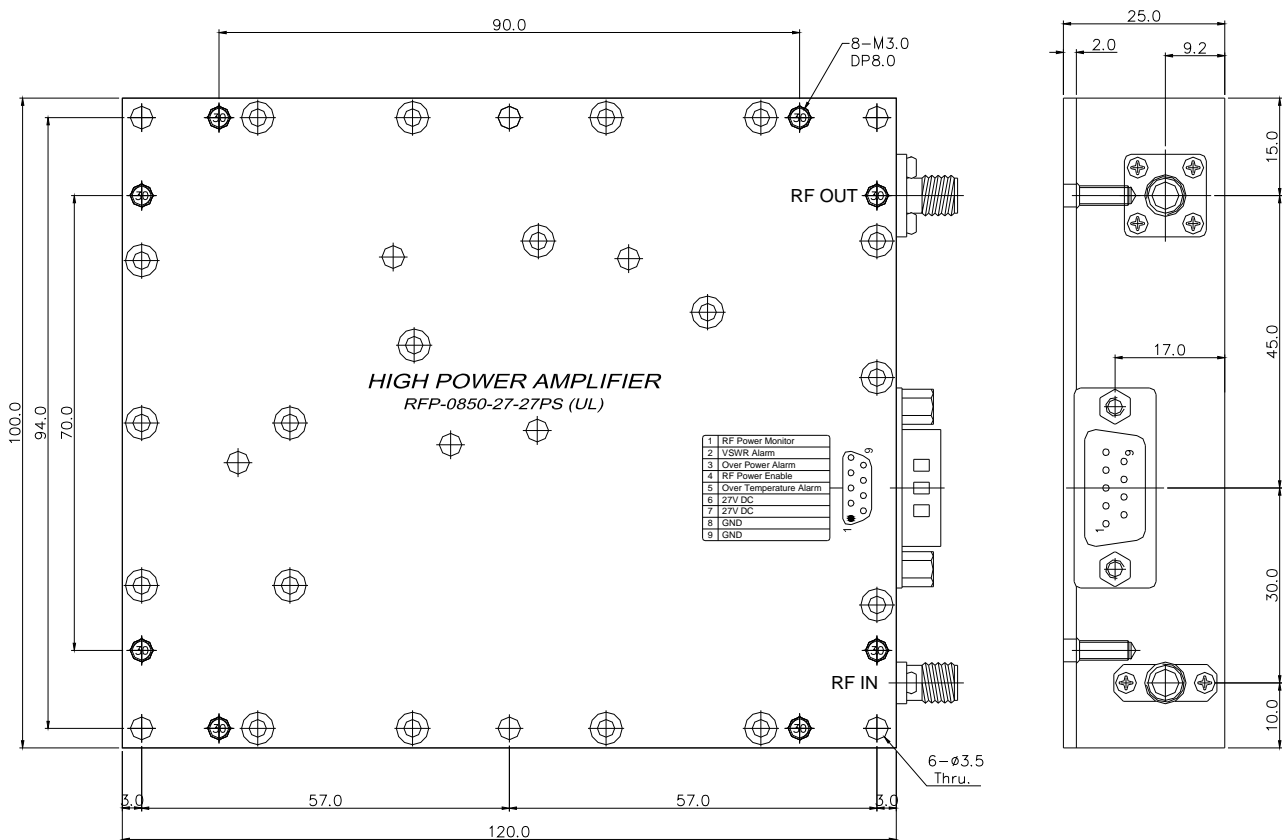
PARAMETER	Symbol	Specification	
Frequency Range	BW	806~824MHz	896 ~901MHz
Output Power	P	27dBm (24dBm/tone)	
Gain	G	27dB ±1dB (min)	
Gain Flatness	ΔG	1dB (peak to peak)	
IMD Pout= 27dBm (24dBm/tone)	IMD	≤ -58dBc (25kHz)	
		≤ -60dBc (1MHz)	
Input Power ALC	ALC	Operating point	28dBm ± 0.5dB
		Operating range	10dB (min)
Input/Output VSWR	S11/S22	1.3 :1 (max) to 50Ω	
DC Input Voltage	VDC	+27V DC	
DC Input Current	IDD	1.2A(max) (@Vdc= +27V, @24dBm/tone)	
RF Power Detect	DET	4V @ 30dBm, (100mV / 1dB), Detect range : 0dBm ~ 30dBm	
Over Power Alarm & shutdown	OPA	31dBm±0.5dBm, TTL High Alarm	
VSWR Alarm	VSWR	S22 > 3 : 1 & Pout > 15dBm, TTL High Alarm	
Over Temperature Alarm & shutdown	OTS	90°C±5°C (shutdown), 70°C±5°C (auto recovery) TTL High Alarm	
Operating Temperature	To	-10 ~ +50	
Dimension		120 x 100 x 25(mm)	
RF Connectors		SMA Female	

Interface Connectors

D-Sub, 9-Pin-Control

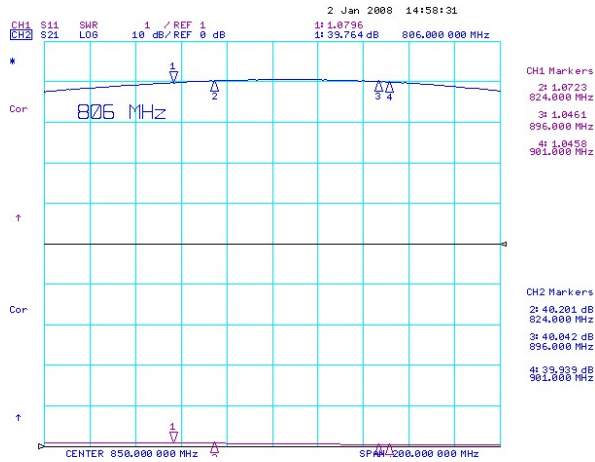
Pin #	DESCRIPTION	Specifications
1	RF Power Monitor	4V @ 30dBm, (100mV / 1dB), Detect range : 0dBm ~ 30dBm
2	VSWR Alarm	S22 > 3 : 1 & Pout > 15dBm, TTL High Alarm
3	Over Power Alarm & Shutdown	31dBm±0.5dBm, TTL High Alarm
4	RF Power Enable	Enable : TTL Low & GND / Disable : TTL High & Open
5	Over Temperature Alarm & shutdown	90°C±5°C (shutdown), 70°C±5°C (auto recovery) TTL High Alarm
6	+VCC	+27V
7	+VCC	+27V
8	GND	GND
9	GND	GND

OUTLINE DRAWING



TYPICAL PERFORMANCE

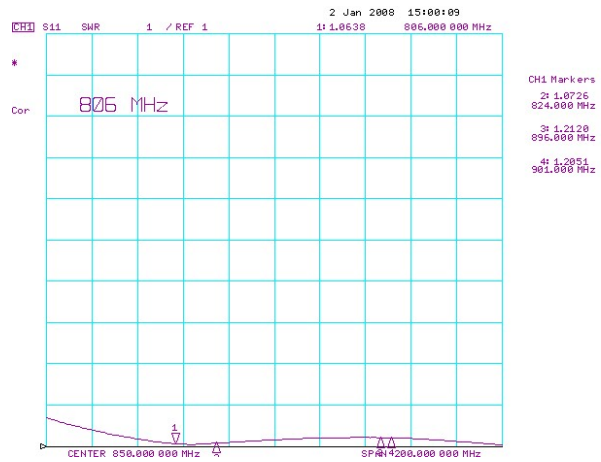
GAIN & S11



24dBm/tone (1MHz Spacing) @ 815MHz

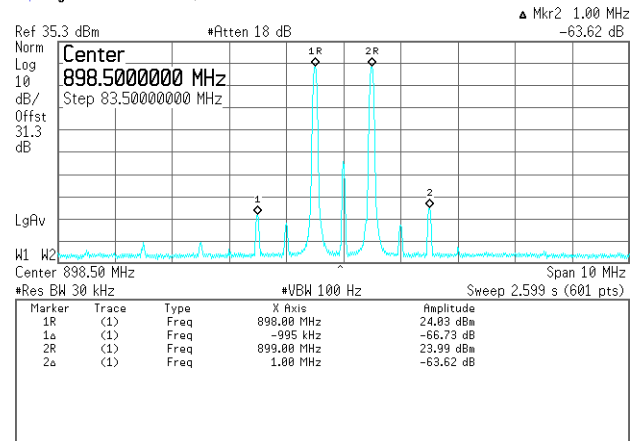
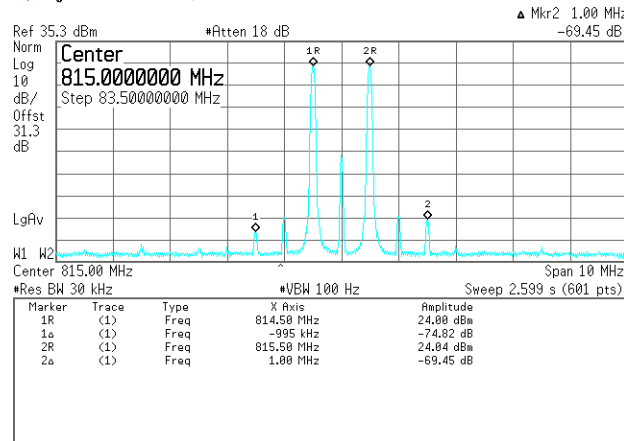
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S22



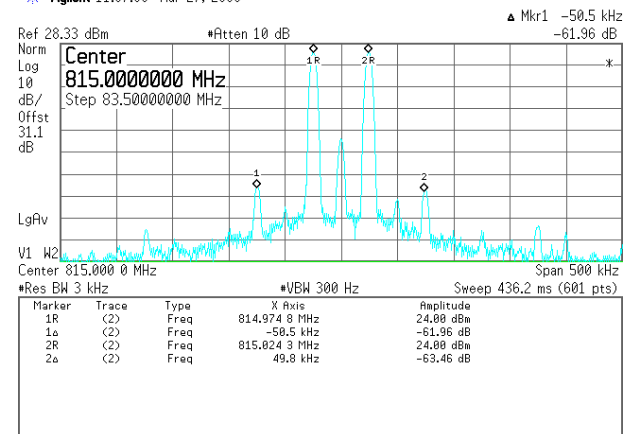
24dBm/tone (1MHz Spacing) @ 898.5MHz

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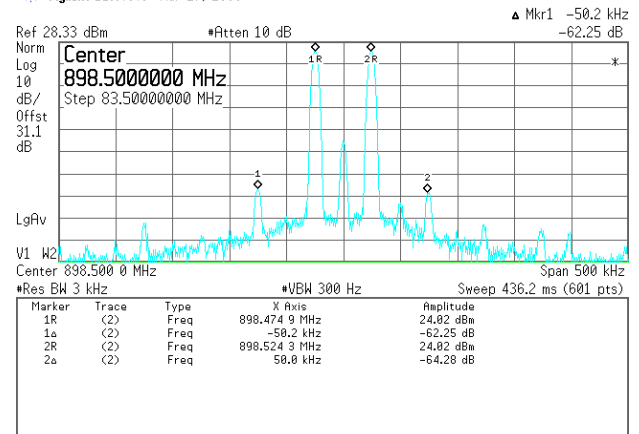
24dBm/tone (50KHz Spacing) @ 815MHz

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24dBm/tone (50KHz Spacing) @ 898.5MHz

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